



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RB 92700-10305-041-4-PO

Job Sheet 185627



Part No: RB 92700-10305-041-4-PO **Job Qty:** 3 ea

Part Name: Tail Gear Box & Input Gear Box Seal Installer Assembly



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 10/31/18

Job Tracking No:

Due Date: 12/14/18

Created By: Patrick Lussier

Type: Stock

Description:

Note: DWG RB 92700-10305-041 Rev.A IPP Rev. A 18.10.29 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	3 pcs	12/14/18	12/14/18	0.00	0.00	Purchasing		
110	Packaging	3 pcs	12/14/18	12/14/18	0.00	0.00	Packaging2		
120	QC	3 pcs	12/14/18	12/14/18	0.00	0.00	QC6		
130	Small Fab	3 pcs	12/14/18	12/14/18	0.00	0.30	Small Fab-2	N/R	
140	QC	3 pcs	12/14/18	12/14/18	0.00	0.00	QC5	N/R	
150	Packaging	3 pcs	12/14/18	12/14/18	0.00	0.00	Packaging3		
160	QC21-FG	3 Ea	12/14/18	12/14/18	0.00	0.00	QC21		

Part Op 100 - Issue P/O: 041341 MANUFACTURE RB 92700-10305-041-4 AS PER DWG Supplier: ARROW TECH
Descriptions: MACHINE WORKS -Certificate of conformity is required
130 - Re-identify as required.

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
RB 92700-10305-041-4P	Tail Gear Box & Input Gear Box Seal Installer Assembly	3 (1 ea)	100-Purchasing	5139937

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	RB 92700-10305-041-4P	3	0	0

Part Specifications

Specifications could not be found.

Plex 10/31/18 8:58 AM dart.Lussier.Patrick



Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S139939



Tail Gear Box & Input Gear Box Seal Installer Assembly

PART NO: RB 92700-10305-041-4

Serial No/Batch: S139939

Revision: PO

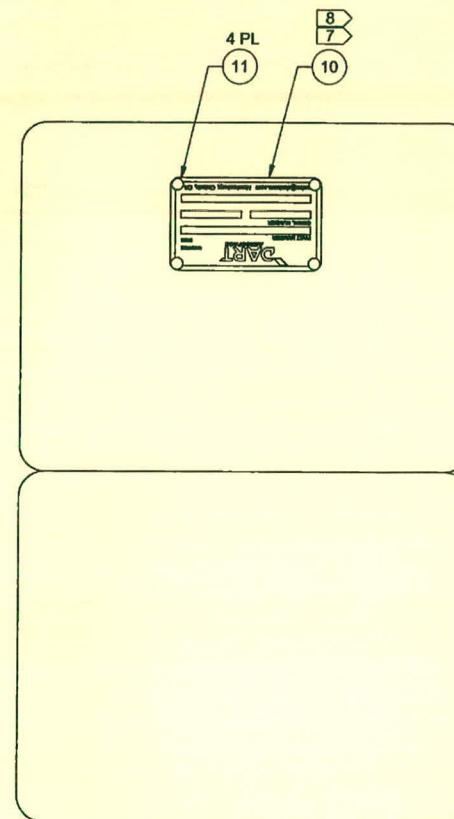
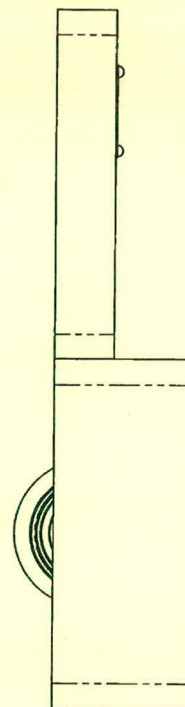
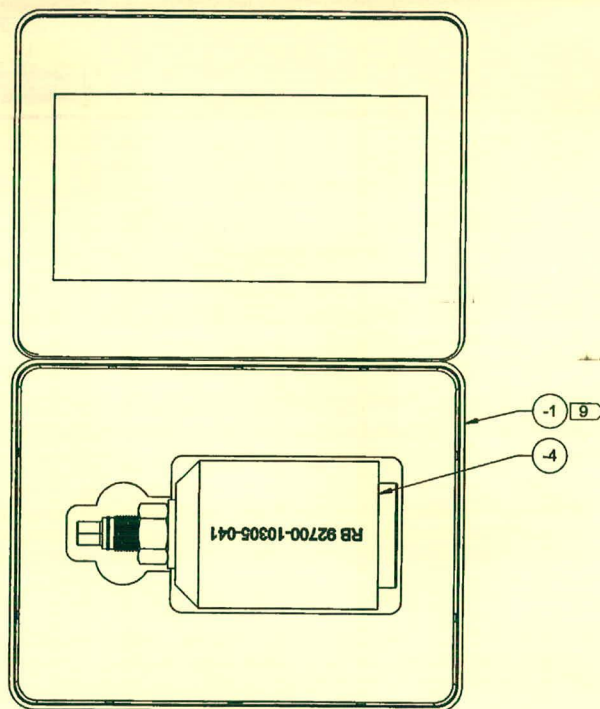
Operation: Packaging

Change No:

Mfg Date: 12/21/18

Job No: 185627

ITEM #	QTY	PART #	PART TITLE
-1	1	RB 92700-10305-041-1	PACKAGING ASSY
-4	1	RB 92700-10305-041-4	TGB & IGB SEAL INSTALLER ASSY
10	1	RB41011	DART PLACARD
11	4	McMaster#97524A032 OR EQUIV.	ALUMINUM SEALING BLIND RIVETS 1/8" DIA. x 0.425" LG.



NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A

- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1"
- X.XX = +/- 0.01" / +/- 0.5"
- X.XXX = +/- 0.005" / +/- 0.1"
- X.XXXX = +/- 0.0005" / +/- 0.05"

PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"

- 5) UNITS: INCHES UNLESS OTHERWISE NOTED

- 6) BREAK SHARP EDGES: N/A

- 7) IDENTIFICATION: ENGRAVE THE TOOL P/N & S/N ON THE DART PLACARD WHERE INDICATED

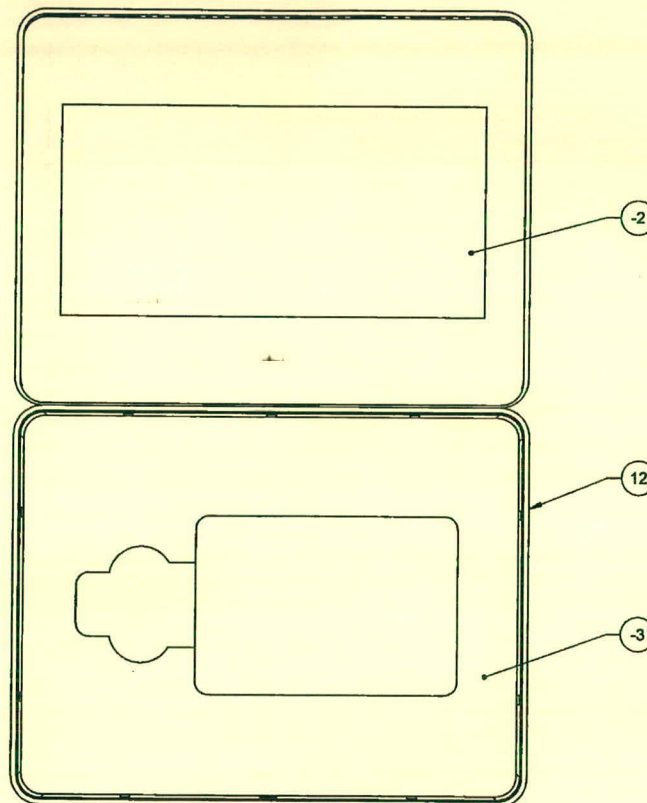
- 8) INSTALL THE DART PLACARD ONTO THE TOP OF THE CASE IN AVAILABLE AREA USING ALUMINIUM POP RIVETS

- 9) HOT GLUE THE TOP AND BOTTOM FOAM INTO THE CASE

RB 92700-10305-041 TGB & IGB SEAL INSTALLER

A	NEW ISSUE	18-800	VM
REV.	DESCRIPTION	ECN #	BY
DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	VM	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10305-041	SHEET 1 OF 10
APPROVED	VM	TITLE	SCALE
DATE	9/10/2018	TGB & IGB SEAL INSTALLER	NTS
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ITEM #	QTY	PART #	PART TITLE
-2	1	RB 92700-10305-041-2	TOP FOAM
-3	1	RB 92700-10305-041-3	BOTTOM FOAM
12	1	PELICAN #APP-1200-E	PELICAN CASE 1200



RB 92700-10305-041-1 PACKAGING ASSY

NOTES:

- 1) MATERIAL: N/A
2) HEAT TREAT: N/A
3) FINISH: N/A

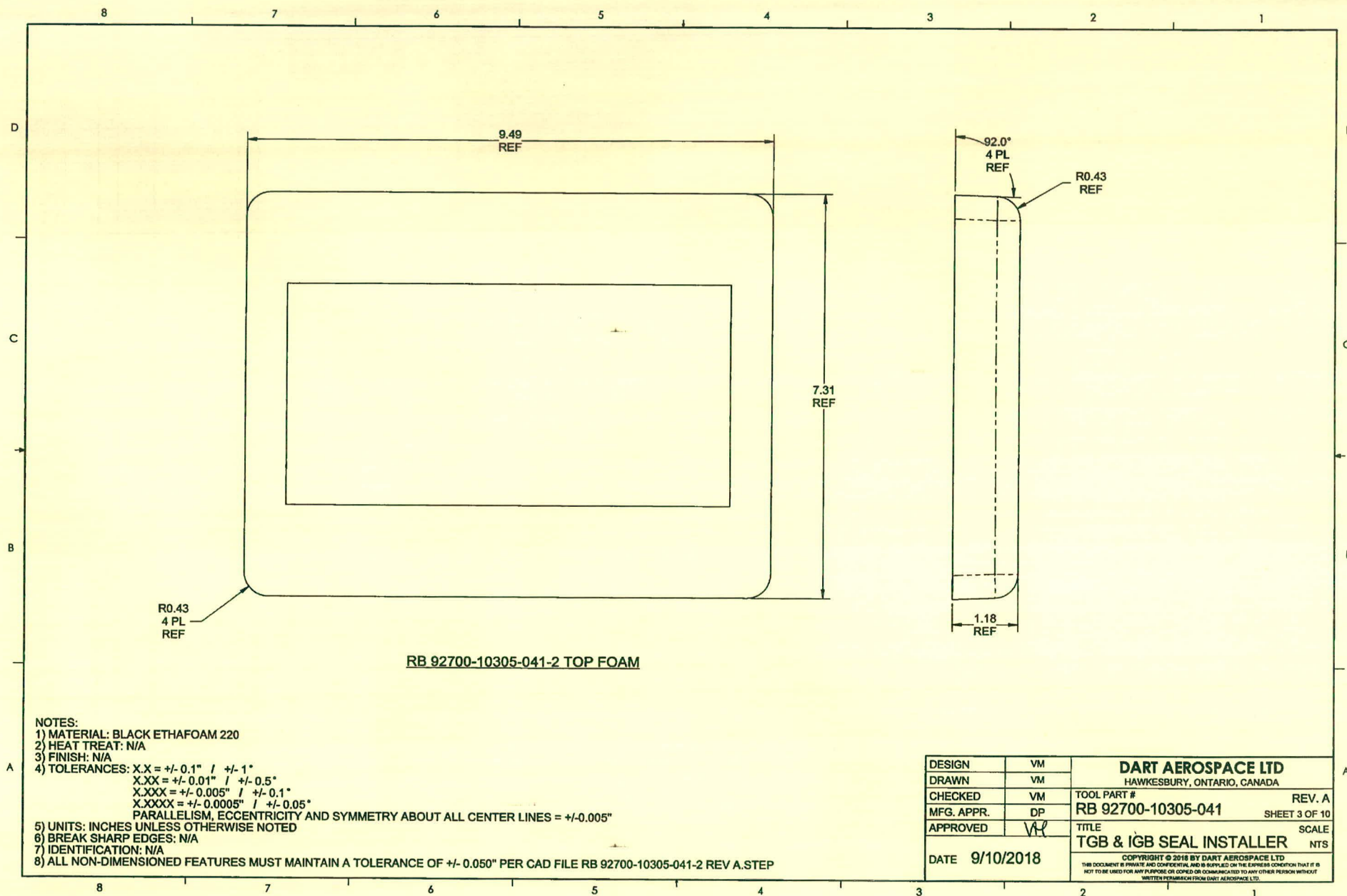
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"

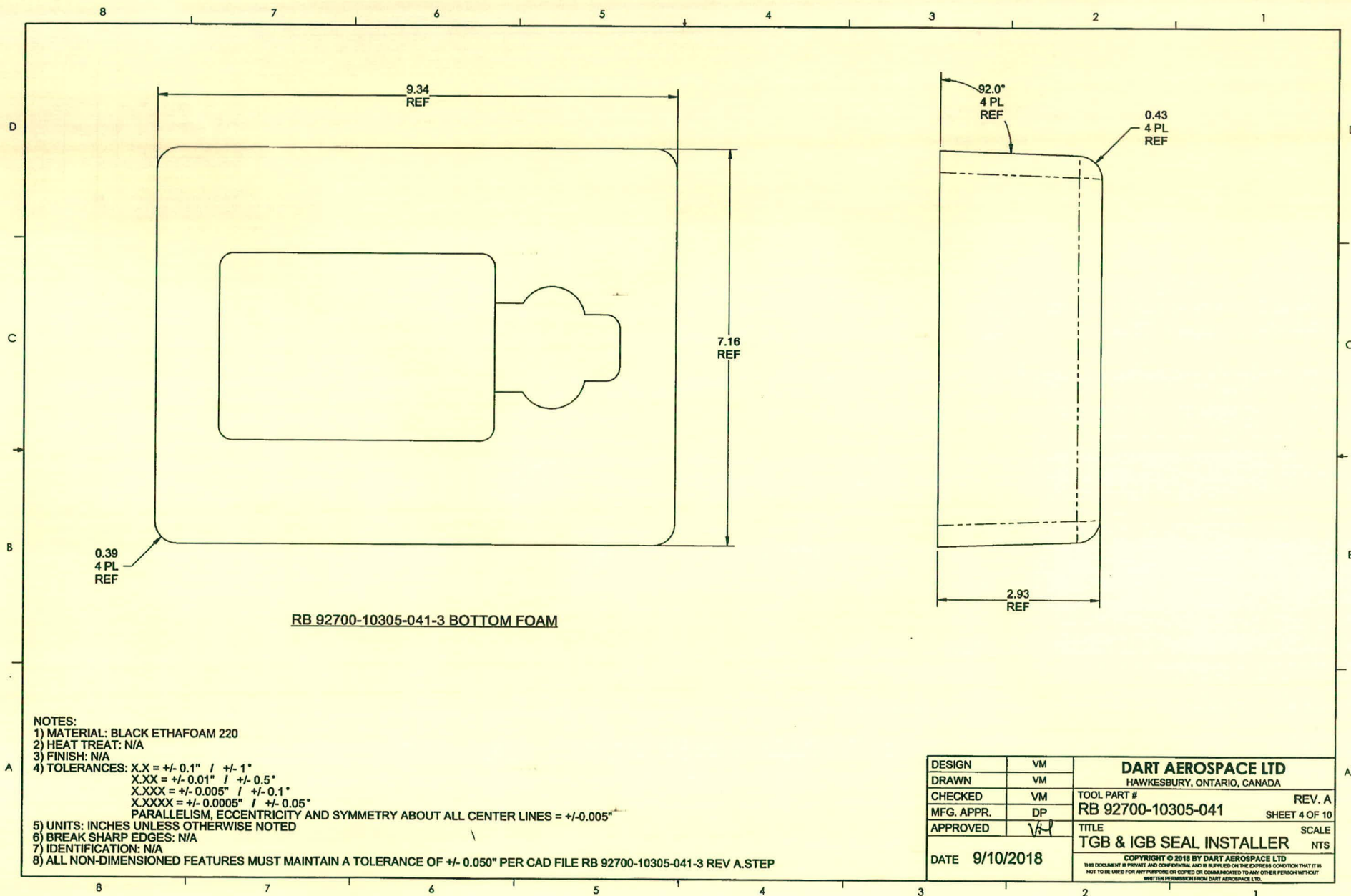
5) UNITS: INCHES UNLESS OTHERWISE NOTED

6) BREAK SHARP EDGES: N/A

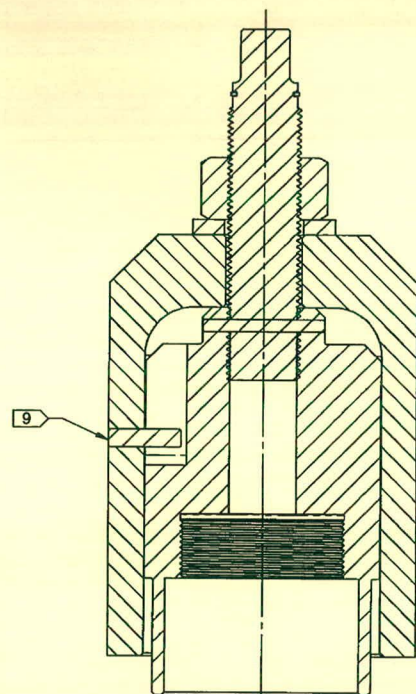
7) IDENTIFICATION: N/A

DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	VM	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10305-041	SHEET 2 OF 10
APPROVED	VM	TITLE	SCALE
		TGB & IGB SEAL INSTALLER	NTS
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ITEM #	QTY	PART #	PART TITLE
-5	1	RB 92700-10305-041-5	PUSHER ASSY
-8	1	RB 92700-10305-041-8	REACTOR ASSY
13	1	McMaster#98023A036 OR EQUIV	STEEL FLAT WASHER FOR 3/4" SCREW
14	1	McMaster#94895A840 OR EQUIV	STEEL HEX NUT 3/4"-16
15	1	McMaster#98410A126 OR EQUIV	STEEL EXTERNAL RETAINING RING FOR 5/8" OD



RB 92700-10305-041-4 TGB & IGB SEAL INSTALLER ASSY

10

NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A

- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1"

X.XX = +/- 0.01" / +/- 0.5"

X.XXX = +/- 0.005" / +/- 0.1"

X.XXXX = +/- 0.0005" / +/- 0.05"

PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"

- 5) UNITS: INCHES UNLESS OTHERWISE NOTED

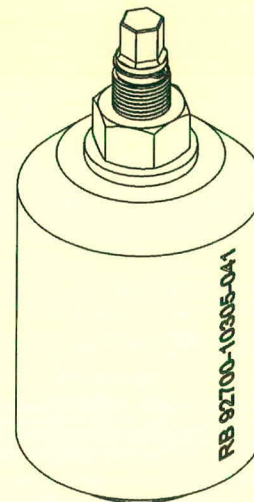
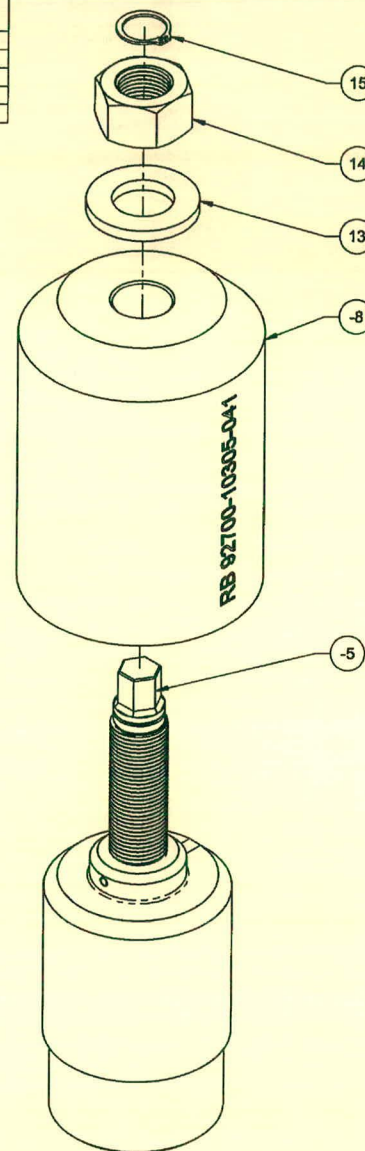
- 6) BREAK SHARP EDGES: N/A

- 7) IDENTIFICATION: N/A

- 8) ASSEMBLE AS SHOWN

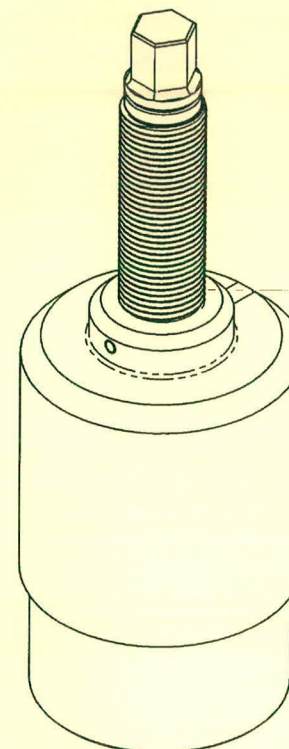
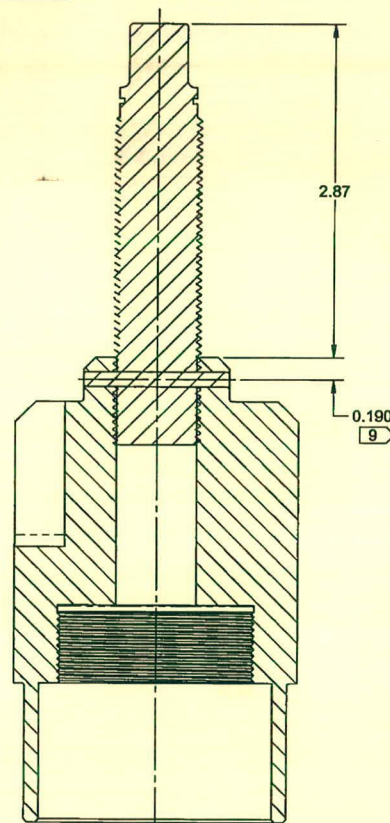
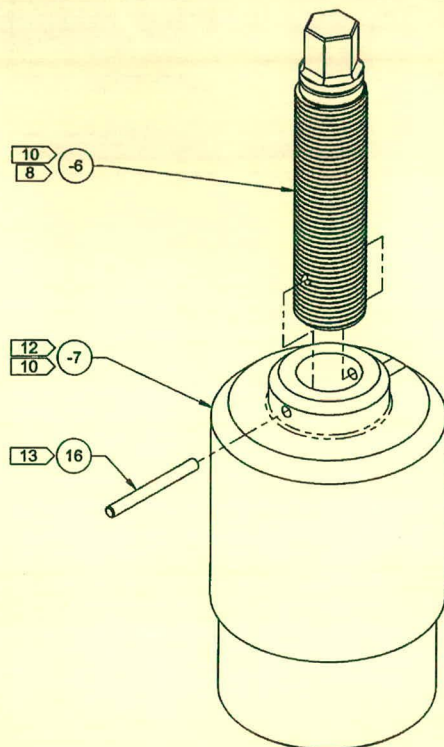
- 9) DOWEL PIN IN ITEM -8 MUST BE ALIGNED WITH THE SLOT OF ITEM -5 AS SHOWN

- 10) THE TOOL ASSY MUST BE PACKAGED WITH A DESICCANT BAG INTO A TIGHT FITTING SEALED PLASTIC BAG



DESIGN	VM	DART AEROSPACE LTD	
DRAWN	VM	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VM	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10305-041	SHEET 5 OF 10
APPROVED	VM	TITLE	SCALE
		TGB & IGB SEAL INSTALLER	NTS
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ITEM #	QTY	PART #	PART TITLE
-6	1	RB 92700-10305-041-6	THREADED ROD
-7	1	RB 92700-10305-041-7	PUSHER
16	1	McMaster#98381A477 OR EQUIV	STEEL DOWEL PIN 1/8" DIA. x 1-1/4" LG.

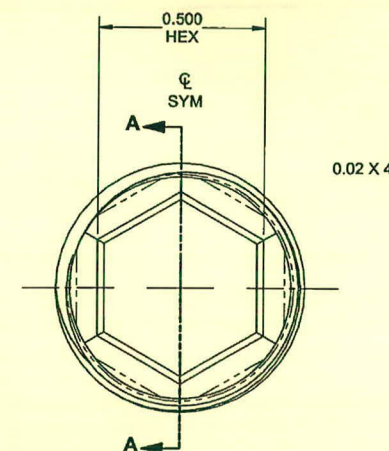
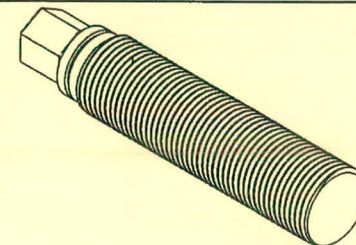


RB 92700-10305-041-5 PUSHER ASSY

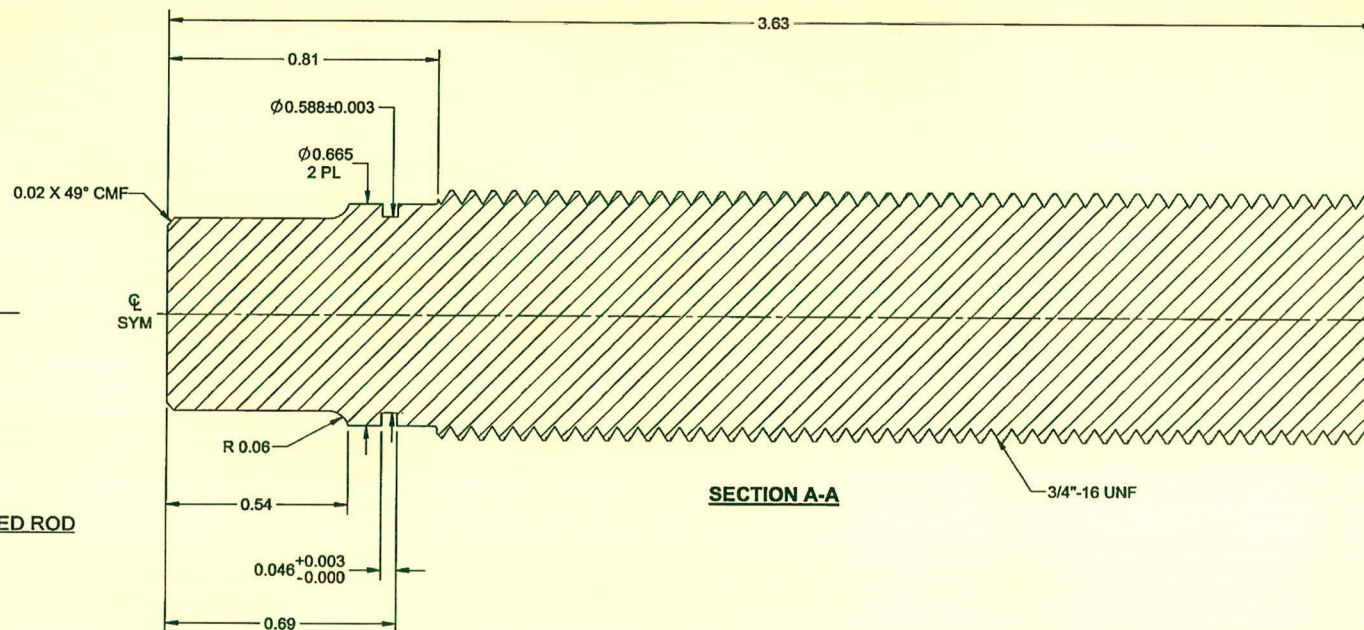
NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: BLACK OXIDE PER MIL-C-13924 CLASS 1 THEN APPLY A THIN LAYER OF OIL / CPC PER MIL-PRF-16173 GRADE 3 CLASS 1 OR MIL-C-81309 TYPE III OR MIL-C-23411A OR MIL-PRF-81309 AND WIPE OFF EXCESS
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1"
X.XX = +/- 0.01" / +/- 0.5"
X.XXX = +/- 0.005" / +/- 0.1"
X.XXXX = +/- 0.0005" / +/- 0.05"
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: N/A
- 7) IDENTIFICATION: N/A
- 8) INSTALL ITEM -6 AS SHOWN
- 9) DRILL $\phi 0.1250/0.1242$ " THRU ALL HOLE
- 10) REMOVE ITEM -6 FROM ITEM -7 AND DEBURR HOLES
- 11) FINISH MUST BE APPLIED WHEN COMPONENTS ARE UNASSEMBLED
- 12) APPLY LOCTITE 262/623 TO MATING THREADS OF ITEM -7 THEN REINSTALL ITEM -6 INTO ITEM -7 UNTIL DOWEL PIN HOLE IS ALIGNED
- 13) APPLY LOCTITE 620 ONTO MATING SURFACES OF ITEM 16 AND ITEM -7 THEN PRESS FIT ITEM 16 INTO HOLE, UNTIL FLUSH WITH SURFACE AS SHOWN

DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	VM	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10305-041	SHEET 8 OF 10
APPROVED	VM	TITLE	SCALE
		TGB & IGB SEAL INSTALLER	NTS
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RB 92700-10305-041-6 THREADED ROD



SECTION A-A

NOTES:

1) MATERIAL: 4140/4142 (28-32 RC)

2) HEAT TREAT: N/A

3) FINISH: N/A

4) TOLERANCES: X.X = +/- 0.1" / +/- 1°

X.XX = +/- 0.01" / +/- 0.5°

X.XXX = +/- 0.005" / +/- 0.1°

X.XXXX = +/- 0.0005" / +/- 0.05°

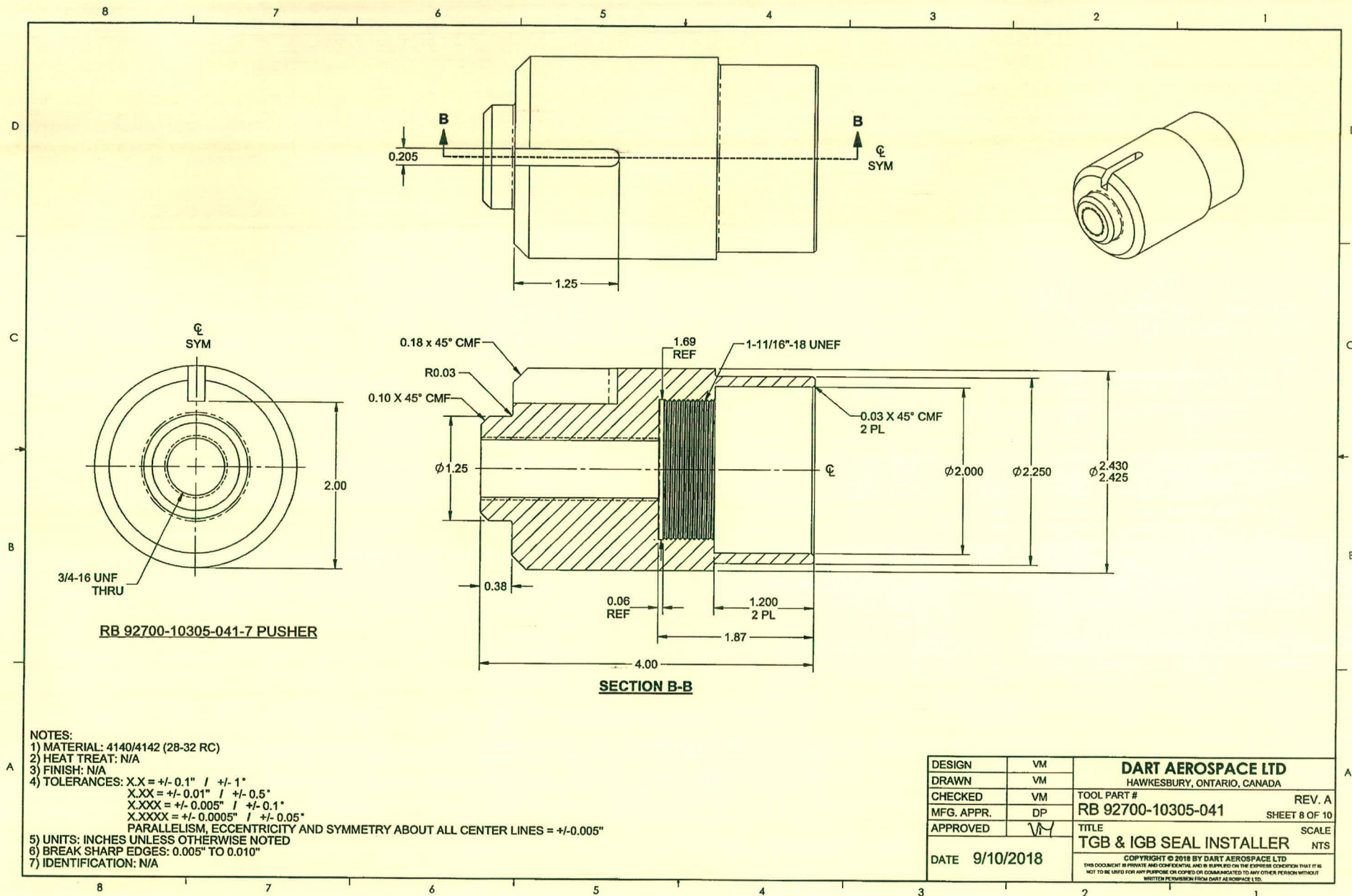
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"

5) UNITS: INCHES UNLESS OTHERWISE NOTED

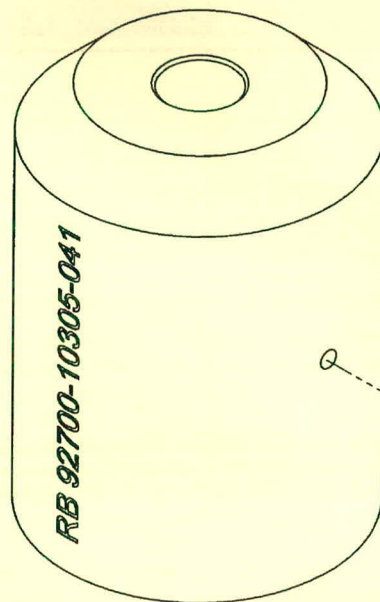
6) BREAK SHARP EDGES: 0.005" TO 0.010"

7) IDENTIFICATION: N/A

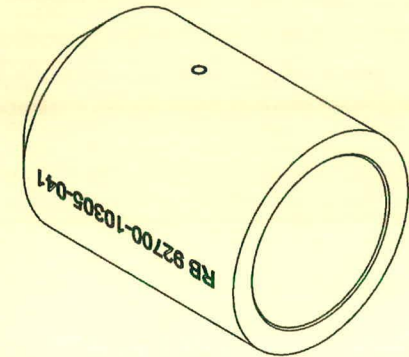
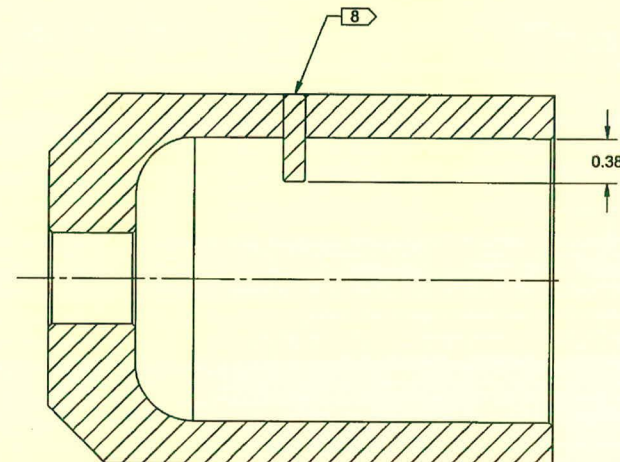
DESIGN	VM	DART AEROSPACE LTD	
DRAWN	VM	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VM	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10305-041	SHEET 7 OF 10
APPROVED	VM	TITLE	SCALE
DATE 9/10/2018		TGB & IGB SEAL INSTALLER	NTS
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ITEM #	QTY	PART #	PART TITLE
-9	1	RB 92700-10305-041-9	REACTOR
17	1	McMaster#98381A316 OR EQUIV	DOWEL PIN STEEL 3/16" DIA. x 3/4" LG.



RB 92700-10305-041-8 REACTOR ASSY



NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A

- 4) TOLERANCES: X.X = ± 0.1 " / ± 1 "
X.XX = ± 0.01 " / ± 0.5 "
X.XXX = ± 0.005 " / ± 0.1 "
X.XXXX = ± 0.0005 " / ± 0.05 "

PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = ± 0.005 "

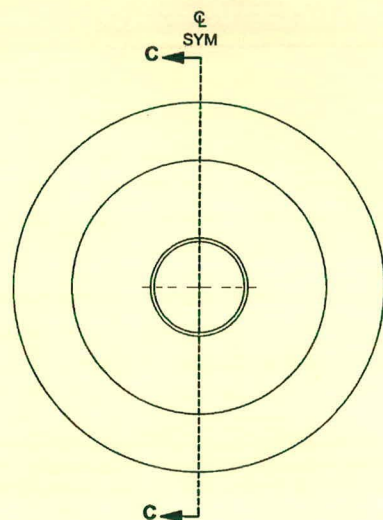
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED

- 6) BREAK SHARP EDGES: N/A

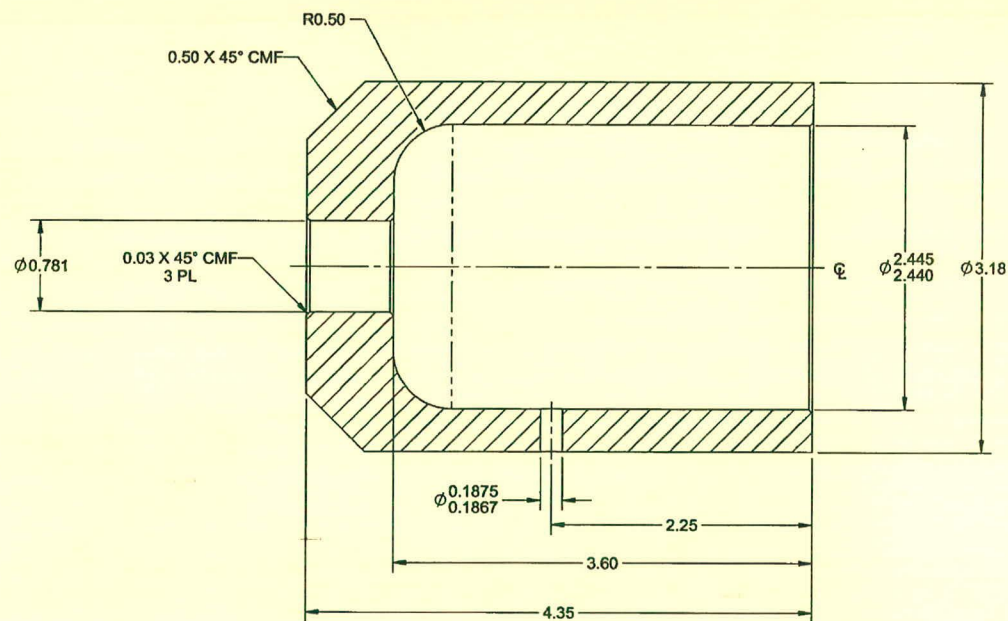
- 7) IDENTIFICATION: N/A

- 8) APPLY LOCTITE 620 OR EQUIVALENT ON MATING SURFACES THEN PRESS FIT ITEM 17 FLUSH TO THE OUTSIDE OF ITEM -9 AS SHOWN AND REMOVES EXCESS

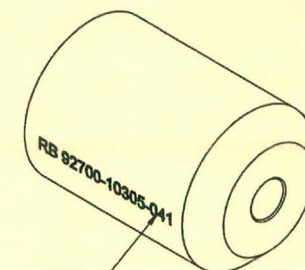
DESIGN	VM	DART AEROSPACE LTD	
DRAWN	VM	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VM	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10305-041	SHEET 9 OF 10
APPROVED	VP	TITLE	SCALE
		TGB & IGB SEAL INSTALLER	NTS
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RB 92700-10305-041-9 REACTOR



SECTION C-C



NOTES:

- 1) MATERIAL: 6061-T6 / 7075-T6
- 2) HEAT TREAT: N/A
- 3) FINISH: ANODIZE RED PER MIL-A-8625 TYPE 2 CLASS 2
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
 X.XX = +/- 0.01" / +/- 0.5°
 X.XXX = +/- 0.005" / +/- 0.1°
 X.XXXX = +/- 0.0005" / +/- 0.05°
 PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"

5) UNITS: INCHES UNLESS OTHERWISE NOTED

6) BREAK SHARP EDGES: 0.005" TO 0.010"

7) IDENTIFICATION: MACHINE ENGRAVE OR DOT MARK T/N AS SHOWN

DESIGN	VM	DART AEROSPACE LTD	
DRAWN	VM	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VM	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10305-041	SHEET 10 OF 10
APPROVED	VP	TITLE	SCALE
DATE 9/10/2018		TGB & IGB SEAL INSTALLER	NTS
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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041341**

Items													
Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
8	185619	RB 92700-10350-041-5P			Seal Remover Assembly REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$1,801.00/Ea	\$5,403.00
Line Item Note SIOP													
9	185620	RB 92700-10309-042P			Tail Blade Wrench (De-Ice) Weldment Assembly REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$745.00/Ea	\$2,235.00
Line Item Note SIOP													
10	185621	RB 92700-10307-041P			TR Nut Wrench REV A	Firmed	-	12/21/18	2 Ea	0 Ea	2 Ea	\$1,694.00/Ea	\$3,388.00
Line Item Note SIOP													
11	185622	RB 92700-10301-041P			Pitch Beam Puller REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$0.01/Ea	\$0.03
Line Item Note SIOP													
12	185623	RB 92700-10329-041-4P			Removal Tool Assembly REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$1,543.00/Ea	\$4,629.00
Line Item Note SIOP													
13	185626	RB 92700-10340-101P			Bearing Spanner Wrench REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$436.00/Ea	\$1,308.00
Line Item Note SIOP													
14	185627	RB 92700-10305-041-4P			Tail Gear Box & Input Gear Box Seal Installer Assembly REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$1,180.00/Ea	\$3,540.00
Line Item Note SIOP													
16	185663	RB 92700-10334-042P			Engine Lifting Sling REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$0.01/Ea	\$0.03
Line Item Note SIOP													

1940
1941
1942



**PHGE Machineworks dba
Arrowtech Machineworks**
29751 E Enid Rd. Unit C
Eugene, Oregon 97402
Phone: (541) 780-6938
Fax: (458) 215-4938

Packing Slip

NO. 356

PAGE 1 OF 2

Date: 12/14/2018
PO Ref: 041341
Ship via: Fedex Priority

Bill To:
Dart Aerospace
1270 Aberdeen St. Hawkesbury, ON
CANADA K6A 1K7

Ship To:
Dart Aerospace
1271 Aberdeen St. Hawkesbury, ON
CANADA K6A 1K8

Qty	Item	Part No.
3	SEAL INSTALLATION TOOL	RB 92700-10300-041-1
3	PLATE ASSEMBLY	RB 92700-10303-041-4
3	WRENCH ASSEMBLY	RB 92700-10303-041-6
3	TGB & IGB SEAL INSTALLER ASSEMBLY	RB 92700-10305-041-4
2	TR NUT WRENCH	RB 92700-10307-041
3	TAIL BLADE WRENCH (DE-ICE) WELDMENT	RB 92700-10309-042
3	TORQUE REACTOR	RB 92700-10314-101
3	SIGHT GUAGE REMOVAL TOOL	RB 92700-10328-041
3	ENGINE DRIVE SHAFT REMOVAL TOOL ASS	RB 92700-10333-041-4
3	BEARING SPANNER WRENCH	RB 92700-10340-101
3	SEAL REMOVAL ASSEMBLY	RB 92700-10350-041-5
3	BEARING ALIGHNMENT TOOL	RB 92700-10356-041
3	TORQUE ADAPTER	RB 92700-10750-101
3	INPUT MODULE WRENCH	RB 92700-10750-102
6	RIG PLATE SCREW	RB 92700-10400-041-6
3	PIT STOP GUAGE	RB 92700-10400-041-7
15	RIG GUAGE PLATE (SPARES)	RB 92700-10400-041-9

DAS
61
9-89

Received by: _____
Packaged by: W
Checked by: C. B.

Thank You

543
13
98 0



ARROW TECH MACHINE WORKS

Certificate of Conformance

Your Purchase Order No:041341 ✓ Dated: 12/14/2018

Our Order / Job No:041341-14AWT Order Qty:3 ✓

Part Name: TAIL GEAR BOX & INPUT GEAR BOX SEAL

Part Number: RB 92700-10305-041-4 ✓

Lot Size:N/A Ship Date: 12/14/2018

We certify that these parts shipped to you are of domestic or international manufacture and conform to all requirements of the Purchase Order. These parts have been manufactured and inspected in accordance with all required specifications, instructions and drawings. Any applicable specifications are listed below:

Drawing Number:RB 92700-10305-041-4

Rev:A

DAS
61
9-89

Material Size and Type:-6,-7/4140 Q & T STEEL; -9/6061-T6 ALUM.

Material Specifications: STEEL: ASTM A108, ASTM A29; ALUM: ASTM B209

Heat Treatment: N/A

Plating/Finish:RED ANODIZE: MIL-A-8625F, TYPE 2 CLASS 2; BLACK OXIDE: QMSI-6.2.2
B.O. REV-D

Mercury Contamination: The material used to process this order has not come in contact with mercury or mercury bearing instruments.

Date: 12/20/18

Signed: Herbert M. Pald

PHGE Machine Works LLC dba Arrow Tech Machine Works
29751 E. Enid Rd. Unit C Eugene, Oregon 97402
Main: (541) 780-6938 | Fax: (458) 215-4938
www.atechmachineworks.com

